

REMARKS

We trust that the examiner will now find the application to be in condition for allowance and reconsideration is respectfully requested. Applicant first wishes to acknowledge with appreciation the telephone conference with Examiner Peng held on Feb. 19, 2010 during which the effect of the “adapted for” language was discussed. In this regard, the examiner will note that the “adapted for” language has now been deleted so as to render the associated recitations limited to specific structure.

The claims remain rejected over the teaching of U.S.P.N. 6,586,722 to Kenny et al in view of U.S.P.N. 6,547,448 to Johnson et al. It is respectfully submitted that these references neither teach nor suggest the present invention.

The present invention comprises a method for compensation of temperature change when measuring strain in fiber-reinforced structures. By using an optical fiber, comprising a number of reflecting structures, which is long enough for no strain to exist in the fiber, a passive reference measurement, which is independent of any strain present in the structure, can be obtained. This is accomplished by placing the optical fiber in loops inside some holders, and when strain is applied to the fiber-reinforced structure, the fiber can give without straining.

The passive reference measurement, which is independent of any strain present in the fiber reinforced structure, can be used to compensate for temperature change in an active strain measurement performed on the same fiber reinforced structure (see page 2 line 14-23 in the present specification). In contrast, the FBG strain sensing elements disclosed at page 2, lines 13-25 of Kenny provide an active strain measurement. By placing the holders comprising the loop

part of the optical fibers in close proximity to the active strain sensors, the temperature will be almost the same and thereby very precise temperature compensation can be achieved.

Accordingly, the present invention is directed to a system for use in temperature compensation of strain measurements comprising the measurement of a passive reference, which is not taught in the cited prior art. As noted, Kenny is directed to an active strain measurement and Johnson is directed to embedding a fiber optic connector in a composite structure. None of the cited prior art teaches the temperature compensation of strain measurements comprising the measurement of a passive reference.

The examiner will note that the claims have been amended to positively recite that they are directed at a device and system for temperature compensation in strain measurement that makes use of a strain passive reference. In view of the above, it is respectfully submitted that the application is now in condition for allowance. A relatively early notification of allowance is respectfully requested.

Respectfully submitted,

/T. David Bomzer Reg. No. 48770/

Gerald Levy
Reg. No. 24,419

T. David Bomzer
Reg. No. 48,770

Day Pitney LLP
7 Times Square
New York, NY 10036-7311
(212) 297-5800